

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



# FOOD NEWS

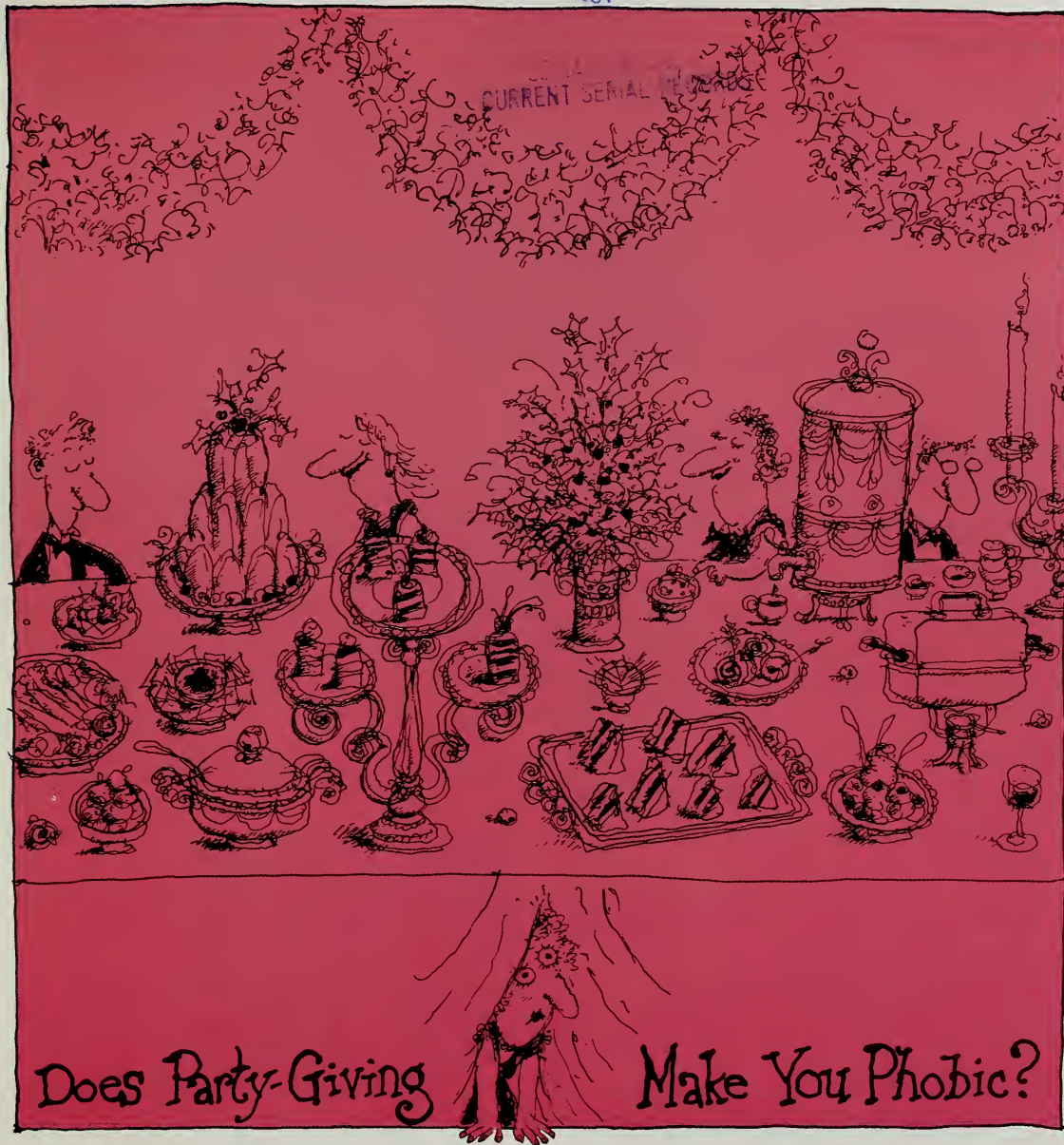
**FOR CONSUMERS**

United States Department of Agriculture

Volume 4 Number 4

Holidays 1987

NOV 5 '87



Does Party-Giving

Make You Phobic?

See "Those Big Party Questions", p. 4

Turkey  
Shortcuts

Free Publications as  
Stocking Stuffers

Kids Make  
Party Meatballs

# FOOD NEWS

## FOR CONSUMERS

Holidays 1987  
Vol. 4, No. 4

Contents of this magazine are intended for re-use. No permission is necessary.

This magazine is published by the U.S. Department of Agriculture, Food Safety and Inspection Service.

**Administrator**  
Donald L. Houston

**Director, Information and Legislative Affairs**  
Nancy Robinson

**Chief, Information Office**  
Karen Stuck

**Editor**  
Mary Ann Parmley  
(202) 447-9113

**Production**  
Maxine Grant

**Marketing**  
Laura Fox

**Art Director**  
Kelly McConnell

**Cover Illustration**  
Richard Thompson

**Photography**  
Lester Shepard

*Food News for Consumers* is published four times a year. Subscription price is \$5.00 (domestic) or \$6.25 (foreign) per year. Send subscription orders to: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Send comments and inquiries to: Editor, *Food News for Consumers*, FSIS/ILA, Room 1160 South, U.S. Department of Agriculture, Washington, D.C. 20250. Telephone: (202) 447-9113.

## Ask the Consumer Advisor



Dear Consumer Advisor:

I'd like to plan more healthful meals for my family. But when I read nutrition advice it often conflicts with other information I've seen. Can you help?

Dear Reader:

Unfortunately you do see a lot of conflicting advice on nutrition these days. Because nutrition is a relatively young science, numerous studies are in progress and we are constantly learning more. But it often takes time for scientists to fit new knowledge into what we already under-

stand. And we don't yet know enough about nutrition to identify an "ideal diet" for every individual.

A proponent of a particular view may claim that one food or group of foods will protect you from certain diseases. Some such claims have more scientific basis than others. Other writers focus so strongly on weight loss that they lose sight of basic nutritional needs.

At USDA we're challenged to give consumers sound, clear nutrition advice without exaggerating the benefits of any food group or nutrient. To fill the need, the Department has released "Nutrition and Your Health: Dietary Guidelines for Americans," a capsule guide to good nutrition for healthy people. If you or someone in your family has a medical problem requiring a special diet, you should follow your physician's advice.

A companion packet, "Dietary Guidelines and Your Diet," explains how to put the seven dietary rules in the guidelines to work to protect your health. For instance, you can learn how to cut back on salt, sugar and fat and how to get enough green vegetables and fiber. The packet also contains nutritious recipes.

Both publications are available from M.B. Woods, Consumer Information Center, Pueblo, Col. 81009. Single copies of "Dietary Guidelines for Americans" (519R) are free; the packet "Dietary Guidelines and Your Diet" (114R) costs \$4.50.

Finally, get in the habit of reading food product labels. It really is the *only* way to understand what you're eating—both in terms of what you take in and what you hope to avoid.

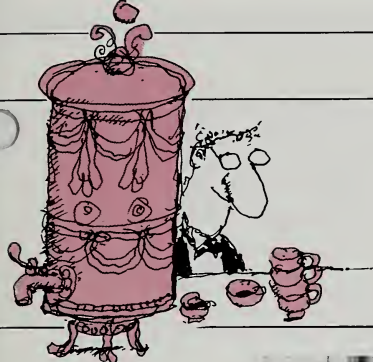
Sincerely,

*Ann Collins Chadwick*

ANN COLLINS CHADWICK, Director  
Office of the Consumer Advisor  
Phone: (202) 382-9681



# CONTENTS



## Consumer Education

Hotline Calling — Those Big Party Questions

When all the world is giving a party and expecting you to bring drumsticks, you need the help our

Hotline home economists can offer ..... p.4

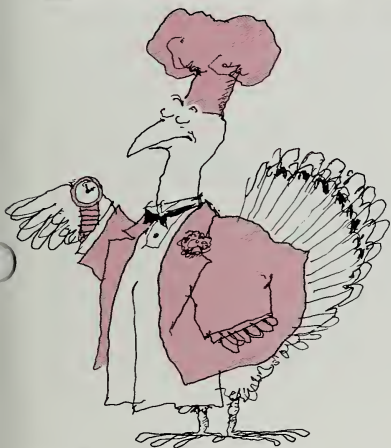


## Health and Nutrition

Ron Berger and the 14-Hour Days Behind a New Species Test

How do you know your all-beef hotdog is really all beef? Berger's new rapid test gives FSIS

inspectors a way to make sure ..... p.6



## Special Feature

Stocking Stuffers!

Neiman's isn't the only catalogue, you know.

Here's our own tempting display of free or nearly-free food and health publications ..... p.8

## Food Safety

You Must Be Joking — Safe Turkey Shortcuts! There are some scrupulously safe and quick ways to handle buying, storing and serving that holiday

bird. This story even gives you a handy chart ..... p.10



## News Wires

Mesquite — Today on the Grill, Tomorrow in Your Cookie?

A USDA scientist may be turning a ranch nuisance plant into an inexpensive, nutritious food source ..... p.13

Concerned About Your Drinking Water?

Now you can call EPA's new drinking water hotline ..... p.14

## The Children's Page

Your class or youngster can follow this picture recipe for hot, spicy — and safely prepared — party

meatballs ..... p.15

## Consumer Education

### Hotline Calling—Those Big-Party Questions

Whether you have party plans for fifty or two, the food safety tips are the same. Consider what you know about kitchen cleanliness. Observe the cold storage, sanitation, and thorough cooking rules to keep food safe any time you prepare for a crowd at home or away from home.

Want some more information on how to handle party preparation? These answers to questions consumers are asking USDA's Meat and Poultry Hotline (800-535-4555) can help you safely prepare food so that everyone enjoys the festivities.

**Q:** I'm planning a large dinner party and I like to cook ahead. Last night, trying to save time, I cooked three large briskets in the same big roasting pot. I refrigerated the cooked meat in the roasting pan while still quite hot. This morning the meat was still warm. I'm concerned about the safety but I've got \$60 worth of meat in there!

**A:** Unfortunately, your meat may not be safe. It has taken much too long to cool. In that time, and in that warm, moist atmosphere, bacteria

have had a good opportunity to grow and multiply. Further cooking now could not guarantee the destruction of toxins that may have formed.

For the future, when cooking ahead, it's best to divide hot, cooked foods into small, shallow containers to promote fast cooling in the refrigerator. Don't worry about putting warm foods, in smaller packages, directly into the refrigerator. It's not safe to counter-cool them first.

**Q:** I bought a cooked, stuffed whole turkey from the local gourmet deli and picked it up at 1 p.m. for a dinner at 6. The butcher told me to leave it in the foil-covered container on the counter and reheat it in the oven the last hour before serving. What do you think of these suggestions?

**A:** It is best to bring home a hot deli stuffed-and-cooked turkey and serve it immediately. We would not recommend buying a fully cooked, stuffed turkey for reheating later at home. Next time plan to pick up the precooked turkey right before serving.

**Q:** How can I stay ahead of the guests by keeping the food looking and tasting good for several hours during a holiday buffet?

**A:** Plan to prepare a number of smaller platters and dishes ahead of time. The back-up plates should be either refrigerated or kept in the oven prior to serving. Hot food should be served from chafing dishes or warming

trays registering 140° F. Check your chafing dish, because often the warmer only holds food at 110 or 120 degrees—a good growth temperature for some bacteria. For cold foods, rest the serving dish on a bed of crushed ice, and remove when 2 hours have elapsed or when the platters are empty. Replace with fresh, full trays. It is unsafe to add new food to a serving dish that has already been out at room temperature over 2 hours.

**Q:** My husband is planning to smoke a large turkey to serve at our annual open-house. But he's never used a smoker. Any tips?

**A:** Your best bet is to follow the instructions that come with your smoker. But beyond that, yes, we do have some tips.

To begin, purchase high quality charcoal and wood chips to ensure that the fire is maintained throughout the long cooking time. Dry chips produce a fast smoke, so start with the chips dry. Then add wet chips for slow, sustained cooking toward the end of the smoking process. A full pan of water must be in the smoker at all times for proper humidity.

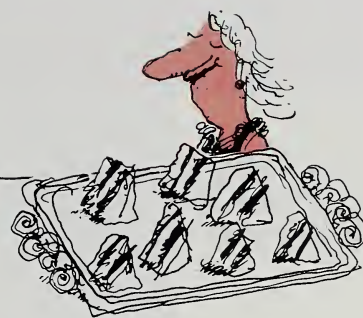
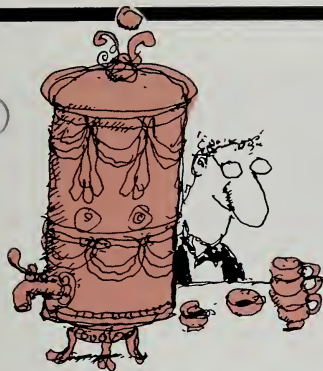


# Does Party-Giving



# Make You Phobic?





For safety, it's most important to use two thermometers. One should be a meat thermometer to determine the doneness of the meat. The other should be used to test the temperature of the smoker itself. Slip an oven thermometer through a cork and place it on the rack. The smoker temperature should be maintained at 225°-300° F. Poultry meat is done when the meat thermometer registers at least 180° F at the thickest part. Remember, too, that the outside weather conditions can greatly affect cooking times. If it is very cold and windy, it may take an additional several hours before the food is finished cooking. Check to make certain that the fire has not gone out.

**Q:** I'm taking 100 pieces of marinated chicken to my church for a holiday dinner. I'm thinking about transporting them in one of those large plastic trash bags. Is that a good idea?

**A:** First, consider that the bag will not provide the insulation required to maintain a safe temperature during the transportation of your foods should that take over 2 hours.

Then check the package containing the trash bags. Very often there will be a statement indicating if the bag is approved for use with food. If there is no such statement, assume that the product is not approved, and do not use it to store or transport food items.

Materials used in production of the bag do not have to be tested for con-

sumption safety if the product is not considered to be generally used with food. The chemical process may not permanently bind harmful components in the bag material and it's possible that the acid in your marinade, for example, could allow chemicals in the plastic bag to get into your chicken.

Also, a deodorant product is sometimes used in trash bags that could affect the taste of the chicken, if nothing else. When working with food items, it's wise to use only containers, cooking utensils and dishes designed for use with food.

**Q:** We have a sign-up sheet to bring food in for the annual school party. What kind of foods should I offer to bring and how will I get them there safely and ready to eat without extra hassle?



**A:** Don't try to duplicate your in-home entertaining away from home. Select simple dishes that can be put in a cold chest filled with ice or frozen gels. Select foods such as dips with vegetables, pasta salads, a meat and cheese tray, or fresh fruit cubes to be speared with toothpicks. Cold cooked meatballs or chicken wings can be thoroughly reheated in an electric frypan for serving hot. Just remember that cold foods should be kept cold

(refrigerated at 40° F) and hot foods should be kept hot (140° F) until ready to serve.

**Q:** A number of catalogues offer luscious looking holiday party food for sale. But ordering my meats through the mail just doesn't seem safe. Should I be concerned?

**A:** Mail order food is a booming business and a lot of the activity takes place between Thanksgiving and Christmas. But the industry enjoys an excellent safety record.

Generally, to be safe, meat and poultry should arrive frozen or "hard cold" with ice crystals. If they arrive defrosted or are warm, do not use them.

The shipper usually supplies ice or dry ice in the packaging and sends it by a speedy method. But timely receipt of the package is your responsibility. You can help ensure proper delivery by providing a complete mailing address and arranging for someone to be available to receive the items.

Some hams and dry sausages are safe unrefrigerated. Check the labels for this information.

With a little planning and some caution, you can feel free to enjoy those tempting products.

—Dr. Georgia Stevens and  
Susan Templin

## Health and Nutrition

### Ron Berger and the 14-Hour Days Behind Rapid Species Testing

by Linda Russell

Someone who's allergic to chicken has a severe reaction after eating a "beef" pot pie.

An individual whose religion prohibits eating pork consumes a "chicken" hotdog, unaware that it actually contains forbidden pig meat.

Another consumer can't seem to find any chicken in the canned chicken stew.

Today these scenarios—whose consequences range from consumer fraud to health risks—can be prevented.

Ronald Berger, a microbiologist with USDA's Food Safety and Inspection Service (FSIS), has recently developed "rapid tests" to detect beef, poultry and pork in cooked products. USDA has had rapid species tests for raw meat and poultry for the last three years.

Developing quick tests to show what species of meat or poultry has been used in a cooked product was harder because heat blurs the distinction between proteins that are characteristic of different food animals.

Not only, then, do the new tests represent quite a scientific breakthrough, they have enormous marketplace significance as well. Why? Because most processed meat and poultry products on the shelves today have been *cooked*. And these products as a group—over 1,000 items from hotdogs to cold cuts to frozen dinners—have increased 20-fold over the last 20 years.

FSIS laboratories use the rapid species tests for cooked products

when our inspectors think a substitution has taken place at a processing plant—for instance, that less expensive chicken has been added to a beef product.

Berger spent three years developing the tests, and another year getting them into use—more than a quarter of his working career. "The joys and frustrations of science are one," Berger reminisced. "You can spend three months working to purify a protein, and then in a moment you find it works! Or it doesn't and you have to start over again."

Berger was always confident that he could develop the rapid tests, but he knew there were some major hurdles in his path.

His work is based on antigen-antibody reactions. All food animals produce characteristic proteins that identify them by species. Therefore cows, chickens and pigs all produce different proteins.

When a "foreign" protein from one animal species enters another species, it is called an antigen. The host animal reacts by producing antibodies to fight off the "invader." That is basically how every animal's immune or protective system works.

It's easy to find distinctive antigens for raw meat and poultry, Berger explained. Unfortunately, though, they often "fade away" when the product is cooked. So Berger's first problem was to find antigens for each species that could still be identified after the cooking that takes place in the processing plant.

Berger knew that some heat-resistant antigens must exist—it was just a matter of "purifying" them or separating these proteins into usable form for testing. Success came when he isolated a beef antigen that would survive cooking.

He was then ready for the next hurdle. He injected a laboratory rabbit with the beef antigen so the rabbit would produce antibodies.

"I was pretty certain the rabbit would show an immune response and produce antibodies," he said. "But would these antibodies react dif-

ferently to antigens from different species? Or would they react in the same way to antigens from beef and, say, mutton?" The more clear-cut the reaction to each species, the more valuable the results would be.

Many of Berger's working days... and nights and weekends... were taken up with this step in the experiment. "Science does not punch a time clock," he grinned. "If you're running a sensitive chemical analysis it may take 14 hours, and you have to be there when it finishes."

The work paid off. He was able to get the rabbits to produce distinctive antibodies for three separate antigens—one for beef, pork and poultry. But not all the results were ideal. "The pork antigens are great. There's no problem of confusing pork with anything else. The beef antigens are trickier. You can't always distinguish beef from mutton or venison. And we still can't tell chicken from turkey."

Not surprisingly, the poultry test is used most often since more product substitutions involve poultry—which costs 30 to 60 cents per pound less than beef or pork.

How do the new species tests work? Basically, the tests are done in a sort of "sandwich." A plastic plate with up to 96 tiny wells (see photo) is coated with the antibody, then with a sample of the cooked product—which naturally contains the antigen—and then with another layer of antibody. Finally, a chemically sensitive clear liquid is added. If the test is for poultry, for instance, and the sample contains poultry, the clear liquid turns emerald green.

The tests employ sophisticated scientific equipment and include various cross-checks to ensure accuracy. They are not meant to be conducted by an FSIS inspector in a processing plant. Still, they take less than 24 hours—which is rapid in comparison with many other lab tests, which may take a week or two. And, once a lab has the necessary equipment, the tests cost only about \$1 per sample.

A further plus is that the tests are





**Berger displays the test plate that has revealed 26 ingredient substitutions in meat and poultry products since it was introduced in the summer of 1986. In most of these cases, less expensive chicken or pork was substituted for beef. FSIS inspectors were alerted to these problems by "suspicious" circumstances in the plant.**

very sensitive, and could be used by industry in their own quality control efforts. In fact, many cases of species substitution are unintentional, and may come about from such things as not cleaning equipment completely between processing two different species. Berger recalled an incident in which the tests showed poultry in a beef product, and the processor wanted to find out how it had happened. A detective-style search of the plant revealed that the beef had been cooked in a hot water bath that had earlier been used for poultry. Mystery solved!

In another incident, a processor wanted reassurance that the species tests were accurate when applied to products with numerous ingredients. "In that case," Berger said, "we tested 30 ingredients in one product. We mixed them all together and made the product right here in our lab." Again, the tests were consistently accurate.

This emphasizes the point, Berger said, that to do accurate species

testing, you have to know everything in a product's list of ingredients. Why? Because the chemical test alone is not "smart." For instance, you get the same reaction for all products from a certain animal species—beefsteak and milk react like beef. Chicken flesh and eggs test out as chicken. So you have to know precisely what is authorized to be in the product.

To complicate matters further, Berger explained, many products contain more than one species of meat. A turkey bologna may list "flavorings" derived from pork skins and so contain pork antigens. Or beef hotdogs may be sold in natural pork casings. Both products, naturally, test positive for pork.

What will Berger's next challenge be? Next he wants to have a private company produce kits for the rapid tests for cooked products. As it is now, his lab is the only one that can supply the tests.

His work is the latest in a series of rapid tests developed by FSIS to use

science to ensure food safety. Two other FSIS scientists, Dr. Richard Mageau and Mark E. Cutrufelli, developed the rapid tests to isolate and identify raw meat and poultry. At first, the tests were only accurate for solid cuts. Then they were refined to work on raw meat in a variety of forms—ground or mixed with liquid or other ingredients.

Science may not punch a timeclock but federal inspectors certainly do. So the development of the new rapid tests is vital to USDA's ability to keep up with the tremendous volume of modern meat and poultry production while also providing safe, properly labelled products.

—Linda Russell, the head of FSIS's print media unit, has fifteen years of experience as a government public affairs officer. Previously, she served as a speech writer for the Forest Service.

# Special Feature

## Stocking Stuffers!

by Mary Ann Parmley

The gift-giving season is just around the corner, and soon you'll be looking for charms for charm bracelets, pennywhistles, candy canes and gingerbread bears to pop into stockings.

The need for stocking stuffers takes on added dimension when you consider that you'll also probably want some small gifts to hand out at work or in the neighborhood.

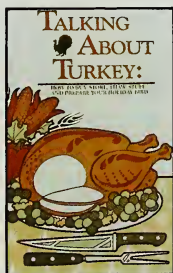
Not to worry. Here's a handy order sheet of food and health publications, all available free or at low cost from the Consumer Information Center in Pueblo, Colo.

The items are grouped by subject, so whether you know newly-wed friends learning to cook, a dentist who always needs waiting-room reading matter or a teacher searching for classroom helps, there should be something for nearly everyone on your list.

### Kitchen Tips

#### Talking About Turkey—How to Buy, Store, Thaw, Stuff and Prepare Your Holiday Bird.

A how-to booklet with expert food safety advice on turkey handling from purchase to leftovers. Contains charts on thawing and cooking times and temperatures, plus recipes to round out the holiday meal. 20 pp. (Revised 1987, USDA) 527R. Free.



**The Safe Food Book—Your Kitchen Guide.** How to prevent food poisoning at home. Contains up-to-date information about food spoilage organisms. Tells what to do if the electricity goes off. Includes storage times for meat and poultry products. 32 pp. (1985, USDA) 526R. Free.

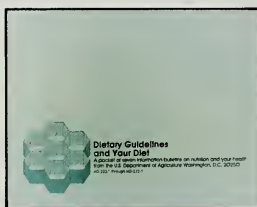


**Meat and Poultry Labels Wrap It Up—with what you need to know.** From finding the calorie count to interpreting the fine print in the ingredients list, this booklet tells you how to read meat and poultry products labels. Covers low-calorie, low-salt and low-fat claims. Tables on approved additives, quality standards for popular meat and poultry items. 16 pp. (1987, USDA) 600R. Free.

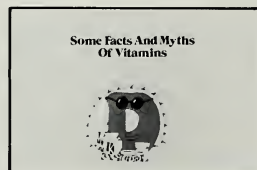


### Nutrition

**Dietary Guidelines and Your Diet.** A handbook on how to use USDA's recently-released dietary guidelines to safeguard your health. Practical suggestions and recipes show how to put each of the 7 dietary guides into action. 52 pp. (1986, USDA) 114R. \$4.50.



**Some Facts and Myths Of Vitamins.** What vitamins are and are not. Which foods are the best sources. 4 pp. (1982, FDA) 522R. Free.



**A Word About Low Sodium Diets.** Tips on how to reduce your sodium intake. Recipes for salt substitutes. 5 pp. (1984, FDA) 524R. Free.

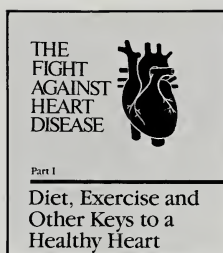
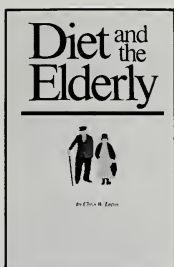


**The Gender Gap at the Dinner Table.** How men and women differ in nutritional needs. Weight and energy expenditure charts. Discussion of nutritional disorders. 5 pp. (1984, FDA) 520R. Free.





**Diet and the Elderly.** Discusses the specific nutrient needs of the elderly and the possible dangers of food and drug interactions. 4 pp. (1985, FDA) 516R. Free.



**Diet, Exercise and Other Keys to a Healthy Heart.** Explains heart attacks, risk factors and treatments. 8 pp. (1986, FDA) 552R. Free.

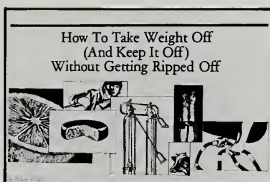
## Staying Fit

**Fitness Fundamentals.** A must for anyone starting to exercise. Discusses how to set up a program, its different components and how to monitor your progress. 7 pp. (1985, PCPFS) 120R. \$1.00.



**Walking for Exercise and Pleasure.** You can walk to get fit. Here's how to warm up and suggestions on how far, how fast and how often to walk for the best results. 12 pp. (1984, PCPFS) 122R. \$1.00.

**How to Take Weight Off Without Getting Ripped Off.** Discusses weight reduction products, fad diets and other diet aids. Provides tips on a sensible weight loss program. 4 pp. (1985, FDA) 543R. Free.



*Abbreviations: USDA—U.S. Department of Agriculture; FDA—Food and Drug Administration; PCPFS—President's Council on Physical Fitness and Sports.*

## Send my stocking stuffers today!

Address an envelope to the Consumer Information Center, Pueblo, Colo. 81009. Make checks out to the Superintendent of Documents. There is a \$1.00 handling fee if you order two or more free publications. Make sure your envelope includes this order check-off form, your filled-in mailing label and payment if necessary.

### I'm checking the ones I want . . .

\_\_\_ 527R **Talking About Turkey**  
Free

\_\_\_ 526R **The Safe Food Book**  
Free

\_\_\_ 600R **Meat and Poultry Labels**  
Free **Wrap It Up**

\_\_\_ 114R **Dietary Guidelines and**  
\$4.50 **Your Diet**

\_\_\_ 522R **Some Facts and Myths of**  
Free **Vitamins**

\_\_\_ 524R **A Word About Low**  
Free **Sodium Diets**

\_\_\_ 520R **The Gender Gap at the**  
Free **Dinner Table**

\_\_\_ 516R **Diet and the Elderly**  
Free

\_\_\_ 120R **Fitness Fundamentals**  
\$1.00

\_\_\_ 543R **How to Take Weight Off**  
Free **Without Getting Ripped Off**

\_\_\_ 552R **Diet, Exercise and Other**  
Free **Keys to a Healthy Heart**

\_\_\_ 122R **Walking for Exercise and**  
\$1.00 **Pleasure**

### Total CIC order:

Number of sales titles ordered \_\_\_\_\_

Number of free titles ordered \_\_\_\_\_

Total sales price \$ \_\_\_\_\_

\$1 fee for 2 or more free pubs \$ \_\_\_\_\_

Total enclosed \$ \_\_\_\_\_

### Type or print your mailing label:

Name \_\_\_\_\_

Street Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_



## Food Safety

### **You Must Be Joking— Safe TURKEY Shortcuts**

by Laura Fox

Let's face it. Sometime between Thanksgiving and New Year's Day, turkey will find its way onto your menu. And because time is one thing you don't have much of during the holidays, you'll be looking for shortcuts. The good news is that there are shortcuts you can take without risking an outbreak of foodborne illness.

**When You're Shopping.** Save time this year by deciding what kind of turkey you want *before* you go shopping.

If finding the right-sized bird is critical, buy a frozen one early and save yourself the trouble of running from store to store Thanksgiving week. Keep the turkey frozen until you're ready to thaw and cook it. To operate safely, a freezer should register 0° F or slightly lower.

If you don't want a large turkey taking up space in your refrigerator for 4 or 5 days while it thaws, or you might forget to take it out to thaw, order a fresh bird ahead of time and pick it up 1 to 2 days before you'll be cooking it.

Catering to customer desire for convenience, many groceries will be selling pre-stuffed fresh, whole turkeys. While these birds will be marketed as a time-saver, from a food safety standpoint they can cause problems.

Why? Because raw turkey and stuffing ingredients are highly perishable. Further, when a turkey is stuffed, incubator-like conditions develop in the cavity which can promote bacterial growth. In a home refrigerator, it's nearly impossible to keep the stuffing deep inside a pre-stuffed turkey below 40° F—so cold that most bacteria won't grow.



Therefore, the U.S. Department of Agriculture does not recommend purchase of whole, stuffed fresh poultry. Consider stuffed and ready-to-cook items like boneless turkey breasts, chicken breasts, veal and pork chops as quick alternatives. But carefully follow the "best if used by" dating and directions on preparation to ensure food safety and quality.

Of course, the ultimate shortcut is pre-cooked turkey. But pre-cooked birds must be carefully handled too. The best approach is simply to serve it immediately. Eating it right away also assures the best quality, as cooked meat often develops an "off" or "warmed-over" flavor when reheated.

If you don't want to serve the turkey immediately, then it must be cooled down quickly to below 40° F. It's impossible to rapid-cool a whole tur-

key in a standard home refrigerator. So, if the turkey is stuffed, first remove the stuffing and place it in a shallow container. Remove the meat from the carcass and wrap it in small packages. The meat can be stored in the refrigerator for 3 or 4 days; the stuffing for 1 or 2 days.

When reheating, preheat the oven to 325-350° F and plan on 10 minutes per pound so that the meat reaches a temperature of 160° F.

**When You're Cooking.** Many holiday recipes offer time-saving tips. Some of these timesavers, however, are dangerous from a food safety viewpoint.

Turkey recipes that promote long cooking at a very low temperature (250° F) have been popular recently. This method is *not* recommended. Because of the low temperature, the turkey (and stuffing) might take more than 4 hours to reach a high enough temperature to destroy bacteria, and could therefore be unsafe. The quality of the turkey might suffer too. During prolonged cooking, some areas would tend to become dry.

A safe way to cut cooking time is to use a commercial roasting bag. This can save you an hour or more, depending on the size of the bird. Plus, you can save an additional half hour of cooking time by not stuffing your bird. Using your microwave to cook the turkey is another time-saver, but don't try to microwave a stuffed turkey. That isn't safe—a stuffed bird is too dense for microwaving to assure thorough cooking.

**When You're Serving.** Serving turkey also requires some forethought. Trying to save time at the last minute, a host may put huge platters of food on the table long before the guests arrive. If these platters then sit out another 2, 3 or 4 hours while the party goes on, bacteria could multiply significantly.

To play it safe and save time, make up smaller platters of food ahead of time and keep them in the refrigerator or oven until you need refills for the table.

Put your food out just before the guests arrive. You may want to use heated serving units such as hot trays or chafing dishes to keep food hot. These should hold the food at temperatures above 140° F.

And remember, even in a heated unit, **never leave food out over 2 hours.**

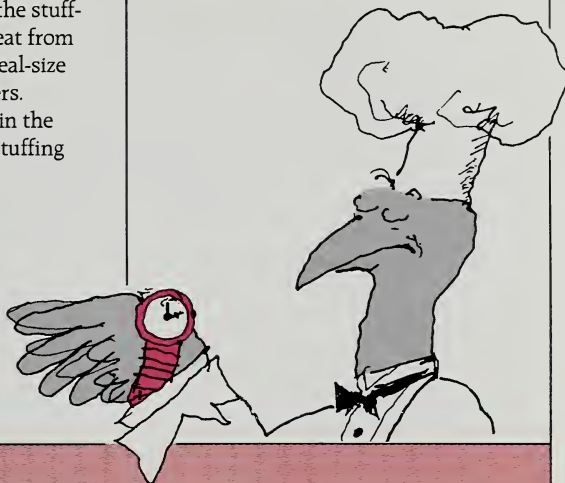
**When You're Storing Leftovers.** When you've just finished eating, the last thing you want to think about is packing away the leftovers. But those

cold turkey sandwiches you're looking forward to could be jeopardized if you don't quickly refrigerate the meat.

Follow this drill: Remove the stuffing from the bird and the meat from the carcass. Store them in meal-size portions in shallow containers.

Leftover turkey will keep in the refrigerator for 3 or 4 days. Stuffing

and gravy should be used within 1 or 2 days. Bring leftover gravy to a rolling boil (185 F°) before serving.



## Turkey Shortcuts— A Check List

### Shopping

Fresh turkey—Order ahead and pick up 1 or 2 days before cooking.

CAUTION: Don't buy a pre-stuffed raw bird or hold any raw bird over 2 days without cooking.

Frozen turkey—Buy early to get the size you want. Keep it frozen before thawing for use.

Pre-cooked turkey—Can be a lifesaver if you pick it up to serve immediately.

### Thawing & Preparation

Thawing—Use the microwave (follow owner's manual) or thaw in cool water in the sink (change water every 30 minutes).

CAUTION: Do not thaw turkey at room temperature.

Washing the Bird—Remove giblets & neck and wash the bird inside and out in cool water the day before cooking. Pat dry with a paper towel, season and—if you wish—coat the skin with oil, margarine or butter. Cover with plastic or aluminum wrap and refrigerate.

Stuffing—Chop & refrigerate perishable ingredients 1 day ahead. Combine with dry ingredients and stuff the turkey just before popping it into the oven.

CAUTION: Never stuff a turkey to be microwaved. You can't be sure of thorough cooking.

A Hot, Soapy Water Clean-up—Raw poultry and its juices carry bacteria. Wash your hands, utensils, cutting board, counters, sink and anything else that touches the raw bird with hot, soapy water before any other food comes into contact with them.

Cooking—Save time by microwaving or baking your turkey in a commercial oven bag or covered roaster. Cooking the bird and stuffing separately also saves time.

CAUTION: Don't use long-time, low-temperature (under 325° F) cooking. Don't partially cook 1 day & try to finish later. Both methods are unsafe.

### Serving & Leftovers

Time Management—Prepare several small platters of food ahead. Take them from the oven or refrigerator as needed.


CAUTION: Don't lay a table with perishables before you're ready to eat or replenish serving plates that have been out for some time.

**Never leave food at room temperature over 2 hours.**

Turkey Soup Coming Up—After dinner, play it safe by removing the stuffing from the bird and refrigerating both. Later, before you go to bed, strip the meat from the carcass, and store the meat and stuffing in meal-sized portions for later use.

CAUTION: Never leave the turkey out all evening for snacking.





## Label, Label on the Jar, Which Meatsauce is the Low-Cal Star?

"What is Lean?"

You don't really need magical powers to find out what's in meat and poultry products today. All you have to do is read the label. Almost everything you'd want to know about a product is on the label.

In addition to the ingredients, a growing number of products list calories, sodium, fat and other nutrition factors.

To become an accomplished label reader, order the U.S. Department of Agriculture's new publication, *"Meat and Poultry Labels Wrap It Up... with what you need to know."*



For your free copy, write:

Consumer Information Center  
F. James  
Dept. 600-R  
Pueblo, Col. 81009

This 16-page booklet contains helpful information on:

- Interpretation of low-sodium, low-fat and "natural" food claims.
- Tips for following use-by dates and product handling instructions as food safety guidelines.
- Tables of approved additives and quality standards for popular meat and poultry products.
- A fold-open chart pinpointing the 6 essential pieces of information on canned and packaged meat and poultry foods.



"What is Net Weight?"



## News Wires

### Mesquite—Today on the Grill, Tomorrow in Your Cookie?

Nearly every other item on a trendy menu these days is mesquite-grilled, cooked over briquets made from the wood of this wild-growing prairie and desert tree.

But now mesquite is on the brink of yet another popularity surge. It seems that the bean pods that hang from the tree are also useful.

Robert Becker, a USDA chemist in Albany, Calif., has developed a simple automated procedure that converts dried mesquite pods into two food products—mesquite flour and a gum that can be used as a safe, natural food thickener. Mesquite flour is also high-protein and sweet-tasting.

Production is easy since, using the procedures Becker and his colleagues have invented, all you need is standard food-processing equipment.

So, what does the future look like for mesquite bean pod cultivation? "The pods are now harvested by hand. So, at present, the cultivation of mesquite bean pods would probably only be feasible in Mexico, South America and other dry regions where labor costs are low and nutritious food sources are needed," Becker said.

Still, the long-term prospects look good. Most of the world's 40 species of mesquite have pods that could be processed into food.

And mesquite is a remarkably tenacious desert plant. It grows on millions of acres in the American West, particularly in Texas, Arizona and Southern California.

Mesquite is so hardy, in fact, that for generations it's been known to farmers and ranchers as a "nuisance" plant. In some places it forms dense, thorny thickets and crowds out grasses needed



**Cows Graze Near Mesquite Trees.** From pre-historic times, mesquite has provided native peoples of the Southwest with food, fiber, shelter, tools, medicine and weapons. (Photo courtesy of USDA-Forest Service)



**Pods and More Pods.** Now mesquite pods are being looked at for additional food potential. (Photo by Tim McCabe, courtesy of USDA's Agricultural Research Service).

to feed cattle. Cut down, mesquite merely grows back.

A history note: Cowboys began wearing chaps principally to protect themselves from mesquite thorns.

You can see, then, how mesquite could be a cultivator's dream. It flourishes in terrain where many other plants fail. It grows fast, and—once established—doesn't need fertilizers or irrigation. It can be pruned to prevent thicket formation.

Another plus, according to Becker, is that analyses at USDA's Western Research Center in Albany show that the mesquite gum has better thickening properties than the guar gum food processors now import. Guar gum is used to thicken ice cream, salad dressings, puddings and other foods.

Already a food processing plant in Chihuahua City, Mexico, is producing a soft, sweet, high-energy snack food from compressed mesquite flour.

In taste tests of crackers and tortilla chips made from various proportions of mesquite and standard whole grain flour, tasters preferred the products containing some mesquite flour to those made with conventional flours alone.

When less than 15 percent mesquite flour was used in bread recipes and under 20 percent in cookies, the results ranged from "neutral" to "favorable," with tasters noting a sweet taste and improved structure.

So in addition to already finding mesquite briquets at the charcoal counter, don't be surprised if someday soon you find mesquite flour shown in the occasional ingredients list as well.

—Joanne Hough

*For further information, contact: Robert Becker, Western Research Center, USDA-ARS, Albany, Cal. 94710. Phone: (415) 486-3623.*

## Concerned About The Quality of Your Drinking Water?

If, like many people, you're concerned about the quality of your drinking water, the good news is that the U.S. Environmental Protection Agency has set up a Drinking Water Hotline.

The toll-free hotline, which offers general and technical information on drinking water quality, is run by EPA's Office of Drinking Water.

How to reach them? The lines are open Monday through Friday, 8:30 to 4:30, Eastern Time.

The Drinking Water Hotline number is **800-426-4791**. Callers in the Washington, D.C. area, dial 382-5533.

Hotline manager Kurt Patrizi says they're getting 25 to 35 calls a day. Many callers are state and local governments or engineering firms concerned about new regulations. But homeowners are calling in too—usually wondering how to have their well or tap water tested for drinking safety.

## Take Care of Your Party Animal

Call the USDA Meat and Poultry Hotline tollfree for food safety facts. **800-535-4555**

Holiday hours: 9:00 a.m.-  
5:00 p.m. EST  
November  
2-27



A public service of this publication and the U.S. Department of Agriculture.



## The Children's Page

### Meatballs Are For Rolling

by Mary Ann Parmley

Do you know anyone who *doesn't* like meatballs? Whether you prefer party meatballs or the everyday kind with spaghetti, they're easy and fun to make.

#### What You Need

- 1 pound ground beef
  - $\frac{3}{4}$  cup bread crumbs
  - 1 small onion, chopped
  - $\frac{1}{4}$  teaspoon salt
  - $\frac{1}{8}$  teaspoon pepper
- Makes 14-16 meatballs

To make bread crumbs, tear bread into thumbnail-sized pieces.

For spicy meatballs, add 2 tablespoons of barbeque sauce to the mixture before cooking.

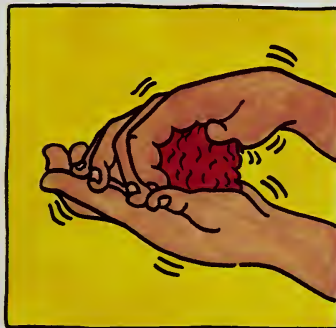
#### What You Do

- Wash your hands in hot, soapy water.



- Mix ingredients with a fork in a large bowl. Spread everything evenly through the meat.

- Roll tablespoons of mixture in your hands to form smooth balls. If your hands get too sticky, wash them after making 2 or 3 meatballs. Wash them again when you're finished.



- Place skillet with very small amount of cooking oil on medium heat. Add meatballs. Turn meatballs with a fork as they brown. Get help with the stove if you need it.

- Meatballs are done when they have a nice crust and the meat is brown all through. Test for cooked color with your fork. Complete cooking kills any food poisoning germs in raw meat. Food poisoning can cause flu-like or more serious illness.



- Drain meatballs on fresh paper towels on a clean plate.



- Cool meatballs a few minutes. For a party, give your friends toothpicks or plastic forks to "spear" their own treats.

- Never leave cooked meatballs or other warm food out over 2 hours. Refrigerate anything that isn't gobbled up.



Illustrations by Kurt Mulholland



